Name of the Bundle	Proficient Bundle V1	Subject	Aptitude
Topic	Mathematical Operations	Last updated on	19 October 2024

1. If + means ' ÷ ' - means ' +, × means '- " and ÷ means '× ',then what will be the value of the following expression : 18÷6−27+3×12.

a. 102
b. 95
c. 105
d. 85

Ans: c. 105
Explanation:

- After changing the signs of the equation⇒ 18×6+27÷3−12.
- By using the BODMAS rule to solve the equation,

⇒ 108+9−12
⇒ 117−12
⇒ 105

Therefore, the answer will be **105.**

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2. What will come in the place of '?' in the following equation, if:

'+' is changed with '-',
'-' is changed with '÷',
'÷' is changed with '+',
'×' is unchanged.

The equation is 120 − 6 + 31 ÷ 8 × 11 = ?

a. 69
b. 73
c. 77
d. 55

Ans: c. 77
Explanation:

- After changing the signs of the equation ⇒ 120 ÷ 6 − 31 + 8 × 11.
- By using the BODMAS rule to solve the equation,

⇒ 120 ÷ 6 − 31 + 8 × 11
⇒ 20 − 31 + 8 × 11
⇒ 20 − 31 + 88
⇒77

Therefore, the answer will be 77.

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3.If A stands for '–', B stands for '+', C stands for '×' and D stands for '÷', then what is the value of 21A3C6(75D15C2B8)A4 ?

a. 345
b. −307
c. 125
d. −125

Ans: b. -307
Explanation:

- After substituting the signs in the equation ⇒ 21-3x6(75÷15 x 2+8)-4.
- By using the BODMAS rule to solve the equation,

⇒ 21-3x6(75÷15 x 2+8)-4
⇒21-18x18-4
⇒-307

Therefore, the answer will be **-307.**

4.If A stands for '-', B stands for '+', C stands for '×' and D stands for '÷' , then what is the value of [16D(2B6)]A(34D17)C3 ?

a. 15
b. 8
c. -4
d. 22

Ans: c.-4
Explanation:

- After substituting the signs in the equation ⇒ [16÷ (2+6)] - (34÷17)x3 .
- By using the BODMAS rule to solve the equation,

⇒ [16÷ (2+6)] - (34÷17)x3
⇒2 - 2 x 3
⇒-4

Therefore, the answer will be -4.

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5. If '+' means '÷', '–' means '+', '×' means '−' and '÷' means '×', what will be the value of the following expression: [{(14 × 6) - (4 ÷ 3)} + (6 - 4)] ÷ 3 .

a. 3
b. 6
c. 1
d. 9

Ans: b.6
Explanation:

- After changing the signs of the equation⇒[{(14 - 6) + (4 x 3)} ÷ (6 + 4)] ÷ 3.
- By using the BODMAS rule to solve the equation,

⇒ [{(14 - 6) + (4 x 3)} ÷ (6 + 4)] ÷ 3
⇒ (8+12) ÷ 10 x 3
⇒6

Therefore, the answer will be 6.

6. If A denotes '+', B denotes '×', C denotes '−', and D denotes '÷', then what will come in place of '?' in the following equation? 56 D 8 B 7 = ? B 7

a. 9
b. 7
c. 8
d. 12

Ans: b.7
Explanation:

- After substituting the signs in the equation, ⇒ 56 ÷ 8 x 7 = ? x 7
- By using the BODMAS rule to solve the equation,

⇒ 56 ÷ 8 x 7 = ? x 7
⇒ 7 x 7 = ? x 7
⇒ ? =7

Therefore, the answer will be 7.

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7. Select the correct combination of mathematical signs to sequentially replace the * signs and to balance the given equation: 135 * 15 * 3 * 2 * 13 *16.

a. ×, +, =, ÷, −
b. +, ÷, −, =, ×
c. ÷, ×, +, −, =
d. =, ×, +, ÷, −

Ans: b. +, ÷, −, =, ×

Explanation: Option-1 ⇒Using combination ×, +, =, ÷, −.

- After substituting the signs in the equation, ⇒ 135 × 15 + 3 = 2 ÷ 13 − 16
- By using the BODMAS rule to solve the equation,

⇒135 × 15 + 3 = 0.153 − 16
⇒2025 + 3 = 0.153 − 16
⇒2028 = -15.847 (LHS ≠ RHS)

Option-2 ⇒Using combination =, ×, +, ÷, −.

- After substituting the signs in the equation, ⇒ 135 = 15 × 3 + 2 ÷ 13 − 16
- By using the BODMAS rule to solve the equation,

⇒135 = 15 × 3 + 0.153 − 16
⇒135 = 45 + 0.153 − 16
⇒135 = 45.153 − 16
⇒135 = 29.153 (LHS ≠ RHS)

Option-3 ⇒Using the combination +, ÷, −, =, ×.

- After substituting the signs in the equation, ⇒ 135 + 15 ÷ 3 − 2 = 13 × 16
- By using the BODMAS rule to solve the equation,

⇒135 + 5 − 2 = 13 × 16
⇒135 + 5 − 2 = 208
⇒140 − 2 = 208
⇒138 = 208 (LHS≠ RHS)

Option 4 ⇒Using the combination ÷, ×, +, −, =.

- After substituting the signs in the equation, ⇒ 135 ÷ 15 × 3 + 2 − 13 = 16
- By using the BODMAS rule to solve the equation,

⇒9 × 3 + 2 − 13 = 16
⇒27 + 2 − 13 = 16
⇒29 − 13 = 16 ⇒16 = 16 (LHS = RHS)

Therefore, the answer will be ÷, ×, +, −, =.

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8. Select the correct combination of mathematical signs to sequentially replace the * signs and to balance the given equation: 11 * 15 * 78 * 6 * 18 * 160

a. +, ×, −, ÷, =
b. ×, +, ÷, −, =
c. ×, +, −, ÷, =
d. +, ×, ÷, −, =

Ans: b. ×, +, ÷, −, =

Explanation:

- Interchange the signs and numbers of the equation ⇒ 11 x 15 + 78 ÷ 6 -18 = 160.
- By using the BODMAS rule to solve the equation,

  ⇒165+13 - 18=160

  ⇒160=160

Therefore, the answer will be ×, +, ÷, −, = .

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9. Which two signs should be interchanged to make the given equation correct?

588 ÷ 28 × 32 + 72 – 160 = 760

a. – and +
b. ÷ and –
c. + and ×
d. ÷ and +

Ans: a. – and +
Explanation:

- Interchange the signs and numbers of the equation ⇒ 588 ÷ 28 × 32 - 72 + 160 = 760
- By using the BODMAS rule to solve the equation,

⇒ 588 ÷ 28 × 32 - 72 + 160 = 760
⇒ 21 × 32 - 72 + 160 = 760
⇒ 672 - 72 + 160 = 760
⇒ 600 + 160 = 760
⇒ 760 = 760

Therefore, the answer will be **– and +** .

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10. Which two numbers and two signs should be interchanged in the following equation to make it correct ? 14 + 16 – 14 × 9 ÷ 4 = 61

a. 16 and 14, + and ×
b. 16 and 9, + and –
c. 14 and 4, – and ÷
d. 14 and 9, + and ×

Ans: b. 16 and 9, + and –
Explanation:

- Interchange the signs and numbers of the equation ⇒ 14 - 9 + 14 x 16 ÷ 4 =61
- By using the BODMAS rule to solve the equation,

⇒ 14 - 9 + 14 x 16 ÷ 4 =61
⇒ 14 - 9 + 14 x 4 =61
⇒ 14 - 9 + 56 =61
⇒ 70 - 9 =61
⇒ 61 = 61

Therefore, the answer will be **16 and 9, + and –.**

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11. Which two signs and numbers need to be interchanged to make the following equation correct? (31 × 3) – (27 × 4) + (81 ÷ 9) = 126

a. 27 and 81, + and –
b. 31 and 27, + and –
c. 3 and 4, ÷ and +
d. 27 and 9, + and –

Ans: d. 27 and 9, + and –
Explanation:

- Interchange the signs and numbers of the equation ⇒ (31 × 3) + (9 × 4) - (81 ÷ 27) = 126.
- By using the BODMAS rule to solve the equation,

⇒ (31 × 3) + (9 × 4) - (81 ÷ 27) = 126.
⇒ (93) + (36) - (3) = 126
⇒ 129 - 3 =126
⇒ 126 =126

Therefore, the answer will be **27 and 9, + and –.**

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12) What is the approximate value of $(23.04)^2 \times 46.12 \div 1.99 + 128.78$?

a. 12876
b. 17290
c. 11002
d. 12300

Ans: d.12300
Explanation:

- The approximate value of the equation ⇒ $(23)^2 \times 46 \div 2 + 129$.
- By using the BODMAS rule to solve the equation,

⇒ $(23)^2 \times 46 \div 2 + 129$
⇒ $(23)^2 \times 23 + 129$
⇒ $(529) \times 23 + 129$
⇒ $12167 + 129$
⇒ $12167 + 129$
⇒ 12296 (approximate) ⇒ Nearest value ⇒ 12300

Therefore, the answer will be **12300.**